

REMARKS

Claims 1-5, 7, 9-13, 15 and 17-51 presently appear in this case. No claims have yet been examined on the merits in this continuation application. The present amendments are being made in order to place the case into better condition for examination. The final rejection of July 19, 2004, in the parent case, application no. 09/893,348, has now been carefully studied. Prompt consideration and allowance are hereby respectfully urged.

Briefly, the present invention relates to technology developed in the laboratory of the present inventors, which is now known in the art as autoimmune neuroprotection. It has been discovered that secondary neuronal degeneration caused by the neurodegenerative effects of an injury, disease, disorder or condition can be reduced if steps are taken to cause T cells activated against an NS-specific antigen which, in its native state, is present at the site of secondary neuronal degeneration, to accumulate at the site of neuronal degeneration. The mere presence of these activated T cells at the site of secondary neurodegeneration causes a cytokine response that has a significant effect in reducing the secondary neuronal degeneration. The preferred method of causing the T cells to accumulate at the site of secondary neurodegeneration is either to administer T cells activated against an NS-specific antigen, or an immunogenic or cryptic epitope thereof, or to administer the NS-specific antigen, or the immunogenic or cryptic epitope thereof, itself in such a

way as to cause a T cell response such that T cells become activated against the NS-specific antigen.

In a review of the present application as filed it has been noted that the pages of declaration filed with this case, which were indicated as being copies from parent application no. 09/893,348, are incorrect copies, in part. Attached hereto is a correct copy of the declarations as originally filed in parent application 09/893,348. The attached copies were downloaded from the Image File Wrapper of the file for 09/893,348, so it can be verified that these are, indeed, copies of the actual papers filed in that case. Please substitute the attached copy of the declarations from the parent case for the pages of declaration filed on March 29, 2004.

It has further been noted that the papers as originally filed did not claim benefit of the priority of Israeli application 124550, filed May 19, 1998. Such priority is hereby claimed. A certified copy of said Israeli application was filed as a priority document in grandparent application 09/314,161 on May 19, 1999. The attached Application Data Sheet includes this claim for priority.

The interview among Examiners Bunner and Kunz and the undersigned attorney on July 14, 2004, is hereby gratefully acknowledged. Prior to the interview, a chart was forwarded to the examiners showing evidence establishing the broad range of proven activity for various indications and various peptides and T cells. A slightly revised copy of this

chart is attached hereto. At the interview, the enablement issues were discussed in light of this evidence. Furthermore, the examiners were forwarded a manuscript by two of the present inventors entitled "A Common Vaccine for Fighting Off Neurodegenerative Disorders: Recharging Immunity for Homeostasis." This has now been published at Trends in Pharmacological Sciences, 25:407-12 (2004), a copy of which is attached hereto. This manuscript explains that the self-perpetuating spread of damage that follows acute injury or occurs independently of primary risk factors in any chronic neurodegenerative disorder is commonly viewed as secondary degeneration, and that the mechanisms that underlie the secondary degeneration are the same, regardless of whether they are secondary to the primary insult of an injury or the primary risk factors of a chronic neurodegenerative disorder.

As a result of the interview, the examiners agreed to reconsider the restriction requirement, particularly if additional evidence could be provided establishing that the mechanisms that underlie the secondary degeneration are the same for secondary degeneration following acute injury, as well as chronic neurodegenerative diseases. However, the examiners stated that the independent claims would have to specify the manner of causing the T cells to accumulate at the site of neurodegeneration, such as by specifying the two ways of doing so alternatively, i.e., administering NS-specific antigen or administering T cells activated against NS-specific antigen. Furthermore, the examiners stated that the

enablement objection would be reconsidered if the claims made very clear that the method was for reducing secondary neuronal degeneration that follows neuronal damage caused by an injury or disease.

The arguments presented at the interview will be repeated hereinbelow in the discussion of the various rejections.

In the final rejection of March 4, 2004, the examiner indicated that claims 46-48, 51-52, 54-56 and 59-60 were withdrawn from consideration in view of the restriction requirement. However, as pointed out in the interview discussed above as well as the interview of June 26, 2003, in the parent case, the same mediators are involved in secondary neuronal degeneration, regardless of whether the primary insult is an acute injury or the chronic degeneration of a disease. As evidence of this conclusion, the examiner's attention is invited to the attached manuscript of Schwartz and Kipnis, as well as the following two attached references:

(1) FRIEDLANDER, R.M. "Apoptosis and Caspases in Neurodegenerative Diseases" N Engl J Med, 348:1365-75 (2000)

(2) VAJDA, F.J.E. "Neuroprotection and neurodegenerative disease" J Clin Neurosci, 9:4-8 (2002)

Friedlander is a review that very clearly includes stroke, brain trauma, spinal cord injury, ALS, Parkinson's disease, etc., in the same category of neurodegenerative diseases. Vajda is another review that describes pathological pathways in five different neurodegenerative diseases. It is

believed that these reviews confirm the statements in the Schwartz and Kipnis manuscript that the same factors, i.e, the same mediators, are involved in secondary neuronal degeneration, regardless of whether the primary insult is an acute injury or the chronic degeneration of a disease.

Furthermore, as will be discussed below, it is believed that the objections to the generic claims in this case will be overcome by the present amendment specifying two alternative ways of causing the T cells to accumulate at the site of secondary neurodegeneration. As it is believed that these generic claims will now be considered to be allowable, withdrawal of the restriction requirement would be in order with respect to the species that fall within this genus. Accordingly, reconsideration and withdrawal of the restriction requirement are again respectfully urged.

In the final rejection, the examiner stated that the declaration was defective because of non-initialled or non-dated alterations. The examiner stated that no Application Data Sheet was found attached to the response in the parent case.

Attached hereto is an Application Data Sheet submitting the correct information as to the residence and post office addresses of all of the inventors, which supersedes the data in the originally filed declaration. Accordingly, it is submitted that in view of this Application Data Sheet, it is no longer necessary to have the declaration re-executed.

In the final rejection in the parent case, the examiner objected to the specification because the status of the patent applications listed in the first paragraph of the specification, as well as at pages 5 and 58, needed to be updated.

The specification has now been amended to update the status of all of these applications. As all of them are now abandoned, this objection can now be withdrawn.

The examiner has maintained the double patenting rejection over the claims of application serial no. 09/218,277. However, as this application has now been abandoned, this double patenting rejection has now become obviated.

Claims 45 and 53 were provisionally rejected under the judicially created doctrine of obviousness type double patenting as being unpatentable over claim 38 of copending application no. 09/314,161. This rejection is respectfully traversed.

Application 09/314,161 has now also been abandoned, thus obviating this obviousness type double patenting rejection.

In the final rejection in the parent case, claims 45, 49-50, 53 and 57-58 were rejected under 35 U.S.C. §112, first paragraph, because the specification, while being enabling for a method for promoting recovery from spinal cord injury comprising subcutaneously administering to an individual in need thereof a composition comprising a peptide

derived from Nogo-A, does not reasonably provide enablement for a method for reducing neuronal degeneration caused by the neurodegenerative effects of disease, or for reducing secondary neuronal degeneration that follows the primary neuronal damage of an injury in the central or peripheral nervous system of an individual in need thereof, comprising causing T cells activated against an NS-specific antigen to accumulate at the site of neuronal degeneration. The examiner also stated that the claims also recite that the individual in need is one suffering from an injury that has caused primary neuronal damage. The examiner states that the specification does not enable any person skilled in the art to which it pertains to make or use the invention commensurate in scope with these claims. This rejection is respectfully traversed.

As discussed in the above-mentioned interview, the present amendment now clarifies that it is only directed to reducing secondary neuronal degeneration that follows neuronal damage caused by an injury, disease, condition or disorder. In this regard, reference is made to the present specification at page 8, lines 1-6, which refers to the protection of nervous system tissue "from secondary degeneration which may follow damage caused by injury or disease of the CNS or PNS." This new language, which is supported by the specification as indicated above, now makes clear that the claims are directed only to a method of reducing secondary neuronal degeneration. Furthermore, the Schwartz and Kipnis manuscript and the Friedlander and Vajda publications, discussed above and

attached hereto, establish that the same factors, i.e., the same mediators, are involved in secondary neuronal degeneration, regardless of whether the primary insult is an acute injury or the chronic degeneration of a disease. Accordingly, the evidence of record that the present invention is operative to ameliorate the secondary neuronal degeneration following crush-injured CNS nerves, as well as the other evidence of record about the treatment of secondary neurodegenerative effects caused by intraocular pressure (see Bakalash et al, Invest. Ophthalmol. Vis. Sci. 44:3374-3381 (2003), copy attached) would lead one of ordinary skill in the art reading the present specification to understand that such secondary neuronal degeneration can be treated, regardless of whether it is secondary to various acute injuries or various chronic neurodegenerative diseases, disorders or conditions. Note also that the examples in the present application establish that both T cells activated against an NS-specific antigen and the antigen itself are active in reducing the secondary neurodegenerative effects following optic crush injury and following spinal cord injury. The attached chart also gives references to papers from the laboratory of the present inventors relating to effectiveness of other NS-specific antigens.

Furthermore, it should be understood that applicant's copending application, 09/765,644 (now issued as patent no. 6,844,314 with claims very similar to those herein), is directed to treating the same indications as in

the present invention, except that the T cells that are caused to accumulate at the site of secondary neuronal degeneration are T cells activated by Copolymer 1, rather than an NS-specific antigen. It was discovered that Copolymer 1 acts in a manner similar to NS-specific antigens for the purpose of autoimmune neuroprotection. The laboratory of the present inventor has done many additional tests relating to other indications using Copolymer 1 rather than an NS-specific antigen which, in its native state, is present at the site of secondary neuronal degeneration. As explained by Prof. Schwartz in her presentation at the interview on June 26, 2003, the experimental evidence obtained with Copolymer 1 and T cells activated against Copolymer 1 prove the concept of the present invention in other indications, and thus would lead one of ordinary skill in the art to believe that if an NS-specific antigen which, in its native state is present at the site of secondary neuronal degeneration, is substituted for Copolymer 1 in those indications, it would also work.

With respect to the additional experimentation with Copolymer 1, see also Angelov et al, PNAS 100:4790-4795 (2003) that relates to the treatment of secondary degeneration following facial nerve injury (which is a PNS condition), Kipnis et al, J Neurotrauma 20:559-569 (2003) with respect to the treatment of neurodegeneration following closed head injury, and Schori et al, PNAS 98:3398-3403 (2001) with respect to treatment of secondary neurodegeneration following glutamate toxicity. The examiner's attention is also invited

to WO 03/047500, related to the treatment of secondary degeneration following motor neuron diseases. Another provisional application, 60/518,627, has data relating to the treatment of secondary neurodegeneration following Huntington's disease. This disclosure has been incorporated into a PCT application that has been published as WO 2005/046719, which also has data relating to the treatment of secondary neurodegeneration following Parkinson's disease. Copies of the publications discussed above that are not already of record are attached hereto. All of this evidence confirms applicant's position that the enablement of the present specification would be sufficient to convince those of ordinary skill in the art that the present application would be generally applicable to secondary degeneration following either acute injury or chronic neurodegenerative disease, and therefore that the present claims are indeed commensurate in scope with the enabling disclosure.

In the interview, the examiners stated that a greater amount of evidence of enablement is necessary for a recitation of a specific disease, and so the examiners suggested the deletion of claims such as claims 6, 8, 14 and 16. Accordingly, these dependent claims have now been deleted in view of the potential allowability of the claims from which they depend. This deletion should not be considered as any kind of concession with respect to enablement with respect thereto, and thus the deletion is made without dedication, disclaimer, abandonment, waiver, forfeiture or estoppel. The

examiner's position that the treatment of these specific conditions is not supported by the present specification is duly noted, however, but is obviated by the deletion of these claims.

While the discussion at the interview was directed to the preamble language "a method for reducing secondary neuronal degeneration that follows neuronal damage caused by injury or disease", the presently proposed claims expand "injury or disease" to read "an injury, disease, disorder, or condition". This is being done merely to avoid any confusion as to whether a given indication is truly "a disease". The term "disorder" is supported by the present specification, as it appears, for example, at page 2, line 23; page 37, line 24; page 49, line 17; and page 50, line 15. The term "condition" is supported in the present specification, as it is used, for example, at page 6, line 17; page 38, line 2; and page 59, lines 1, 3, 9 and 11. Accordingly, this language is supported by the specification and should also be permitted.

Another change from the claim language discussed at the interview is in the penultimate administering step of claims 1 and 9. Besides the NS-specific antigen or an immunogenic or cryptic epitope thereof, whose entry and allowability was already agreed to at the interview, the claim has been modified to insert "(iii) a modification of (i) that is immunogenic but not encephalogenic." The present specification clearly states in paragraph [0109] on page 45 that the modification of one or more amino acids at the T cell

receptor binding site is for the purpose of causing the modified peptide to still bind to the T cell receptor such as to be immunogenic, but not encephalitogenic. The subject matter of new claims 50 and 51 are also supported by this paragraph of the specification. Furthermore, new claims 48 and 49 have been added that are specifically directed to the embodiment of treatment of spinal cord injury, as is supported in the present specification, for example, at paragraph [0118] on page 49 of the specification, particularly line 10 of that paragraph.

The examiner has stated that any references that the applicant wishes for the examiner to review and make of record must be supplied in the form of an Information Disclosure Statement pursuant to 37 C.F.R. §1.98(a)(1). It is respectfully submitted, however, that 37 C.F.R. §1.98(a)(1) applies only to Information Disclosure Statements filed under 37 C.F.R. §1.97 and 37 C.F.R. §1.97 and §1.98 only relate to applicant's duty to disclose information material to patentability under 37 C.F.R. §1.56. The references submitted in the previous response in the parent case and those attached hereto are not being submitted as prior art, as they do not necessarily have dates prior to the effective filing date of the present application. They are all being submitted as evidence supporting applicant's position with respect to the enablement rejection, and proving the broad operability of the present invention. Applicants do not require that these documents be listed on the face of the patent, as they are not

prior art that is material to patentability. It is sufficient that reference thereto remain in the file history. Applicants are not aware of any rule that states that evidence submitted to support applicants' position with respect to enablement cannot be considered unless submitted on an Information Disclosure Statement pursuant to 37 C.F.R. §1.98(a)(1).

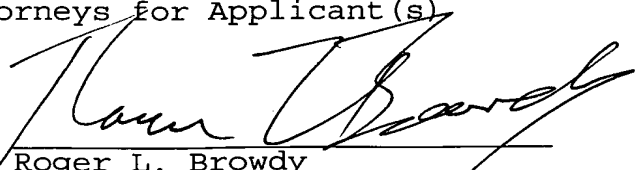
For all of the above reasons, and in view of the amended language of the claims and the additional evidence presented herewith, the present enablement rejection has now been overcome. Reconsideration and withdrawal thereof is therefore respectfully urged.

The present amendment amends the claims substantially in the manner discussed at the interview, and submits the additional information requested by the examiners. Accordingly, it is believed that this amendment places the case into condition for allowance. It is submitted that all of the claims now present in the case clearly define over the references of record and fully comply with 35 U.S.C. §112. Prompt consideration and allowance are therefore earnestly solicited.

Respectfully submitted,

BROWDY AND NEIMARK, P.L.L.C.
Attorneys for Applicant(s)

By


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OCT 31 2001

Original [] Substitute

Atty. Docket: EIS-SCHWARTZ=2A

Combined Declaration for Patent Application and Power of Attorney

As a below-named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name; and that I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled

ACTIVATED T CELLS, NERVOUS SYSTEM-SPECIFIC ANTIGENS AND THEIR USES

the specification of which (check one)

- ☐ is attached hereto:
☒ was filed in the United States under 35 U.S.C. §111 on June 28, 2001 as
 U.S. Appl. No. _____*; or
☐ was/will be filed in the U.S. under 35 U.S.C. §371 by entry into the U.S. national stage of an international
 (PCT) application, PCT/_____: filed _____, entry requested on _____*;
 national stage application received U.S. Appl. No. _____*; §371/§102(c) date _____*
 (* if known)

and was amended on _____ (if applicable).
 (include dates of amendments under PCT Art. 19 and 34 if PCT)

I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above; and I acknowledge the duty to disclose to the Patent and Trademark Office (PTO) all information known by me to be material to patentability as defined in 37 C.F.R. §1.56.

I hereby claim foreign priority benefits under 35 U.S.C. §§ 119 (a)-(d) and 365 (b) of any prior foreign application(s) for patent, inventor's or plant breeder's rights certificate(s), or under §365(a) of any PCT application which designated at least one country other than the U.S., listed below.

Application No.	Country	Filing Date (MM/DD/YYYY)
124500	Israel	05/19/1998

If I claimed foreign priority above, I hereby identify below any foreign application for patent (including an international (PCT) application designating a country other than the United States) or for an inventor's or plant breeder's certificate, having a filing date before that of the earliest application from which foreign priority is claimed (if left blank, then there are none):

Non-Priority Application No.	Country	Filing Date (MM/DD/YYYY)

I hereby claim the benefit under 35 U.S.C. §119(e) of any United States provisional applications listed below:

Application No.	Filing Date (MM/DD/YYYY)
PCT/US98/14715	07/21/1998

I hereby claim the benefit under 35 U.S.C. §120 of any prior U.S. non-provisional application(s) or under §365(c) of any prior PCT international application(s) designating the U.S., listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in such U.S. or PCT international application in the manner provided by the first paragraph of 35 U.S.C. §112, I acknowledge the duty to disclose to the PTO all information which is material to patentability as defined in 37 C.F.R. §1.56 which became available between the filing date of the prior application and the national or PCT international filing date of this application:

Application No.	Filing Date (MM/DD/YYYY)	Status (patented, pending, abandoned)
09/314,161	05/19/1999	Pending
09/218,277	12/22/1998	Pending

As a named inventor, I hereby appoint the following registered practitioners to prosecute this application and to transact all business in the Patent and Trademark Office connected therewith:

All of the practitioners associated with Customer Number 001444

Direct all correspondence to the address associated with Customer Number 001444, which is presently:

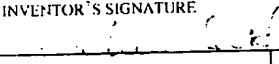
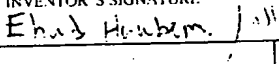
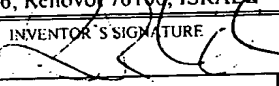

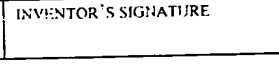
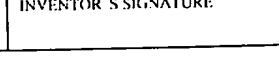
BROWDY AND NEIMARK, P.L.L.C.
 624 Ninth Street, N.W.
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 (202) 628-5197

Title: ACTIVATED T CELLS, NERVOUS SYSTEM-SPECIFIC ANTIGENS AND THEIR USESU.S. Application filed June 28, 2001, Serial No. _____

PCT Application filed _____, Serial No. _____

The undersigned hereby authorizes the U.S. Attorneys or Agents appointed herein to accept and follow instructions from Webb Ben-Ami & Associates as to any action to be taken in the U.S. Patent and Trademark Office regarding this application without direct communication between the U.S. Attorneys or Agents and the undersigned. In the event of a change of the persons from whom instructions may be taken, the U.S. Attorneys or Agents appointed herein will be so notified by the undersigned.

I hereby further declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under 18 U.S.C. §1001 and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

FULL NAME OF FIRST INVENTOR Michal EISENBACH-SCHWARTZ	INVENTOR'S SIGNATURE 	DATE 16.10.2001
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POST OFFICE ADDRESS 27 Bosel Street, Rehovot, Israel 76405		

ALL INVENTORS MUST REVIEW APPLICATION AND DECLARATION BEFORE SIGNING. ALL ALTERATIONS MUST BE INITIALED AND DATED BY ALL INVENTORS PRIOR TO EXECUTION. NO ALTERATIONS CAN BE MADE AFTER THE DECLARATION IS SIGNED. ALL PAGES OF DECLARATION MUST BE SEEN BY ALL INVENTORS.

Combined Declaration for Patent Application and Power of Attorney

As a below-named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name; and that I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled

ACTIVATED T CELLS, NERVOUS SYSTEM-SPECIFIC ANTIGENS AND THEIR USES

the specification of which (check one)

- [] is attached hereto;
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[] was/will be filed in the U.S. under 35 U.S.C. §371 by entry into the U.S. national stage of an international
(PCT) application, PCT/_____, filed _____, entry requested on _____;
national stage application received U.S. Appl. No. _____, §371/§102(c) date _____
(* if known)

and was amended on _____ (if applicable).
(include dates of amendments under PCT Art. 19 and 34 if PCT)

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All of the practitioners associated with Customer Number 001444

Direct all correspondence to the address associated with Customer Number 001444, which is presently:

BROWDY AND NEIMARK, P.L.L.C.
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Att. Docket: RIS-SCHWARTZ-2A
 Title: **ACTIVATED T CELL & NERVOUS SYSTEM-SPECIFIC ANTIGENS AND THEIR USES**
 3. Application filed June 28, 2001 Serial No. _____
 CT Application filed _____ Serial No. _____

The undersigned hereby authorizes the U.S. Attorneys or Agents appointed herein to accept and follow instructions from Webb
 Leiby & Associates as to any action to be taken in the U.S. Patent and Trademark Office regarding this application without
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POST OFFICE ADDRESS			
FULL NAME OF SIXTH JOINT INVENTOR Gila MOALEM		INVENTOR'S SIGNATURE	DATE
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Combined Declaration for Patent Application and Power of Attorney

As a below-named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name; and that I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled

ACTIVATED T CELLS, NERVOUS SYSTEM-SPECIFIC ANTIGENS AND THEIR USES

the specification of which (check one)

- ☐ is attached hereto;
☒ was filed in the United States under 35 U.S.C. §111 on June 28, 2001, as U.S. Appl. No. _____; or
☐ was/will be filed in the U.S. under 35 U.S.C. §371 by entry into the U.S. national stage of an international (PCT) application, PCT/_____; filed _____, entry requested on _____; national stage application received U.S. Appl. No. _____; §371/§102(c) date _____ (* if known)

and was amended on _____ (if applicable).
(includes dates of amendments under PCT Art. 19 and 34 (PCT))

I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above; and I acknowledge the duty to disclose to the Patent and Trademark Office (PTO) all information known by me to be material to patentability as defined in 37 C.F.R. §1.56.

I hereby claim foreign priority benefits under 35 U.S.C. §§ 119 (a)-(d) and 365 (b) of any prior foreign application(s) for patent, inventor's or plant breeder's rights certificate(s), or under §365(e) of any PCT application which designated at least one country other than the U.S., listed below:

Application No.	Country	Filing Date (MM/DD/YYYY)
124500	Israel	05/19/1998

If I claimed foreign priority above, I hereby identify below any foreign application for patent (including an international (PCT) application designating a country other than the United States) or for an inventor's or plant breeder's certificate, having a filing date before that of the earliest application from which foreign priority is claimed (if left blank, then there are none):

Non-Priority Application No.	Country	Filing Date (MM/DD/YYYY)

I hereby claim the benefit under 35 U.S.C. §119(c) of any United States provisional applications listed below:

Application No.	Filing Date (MM/DD/YYYY)
PCT/US98/14715	07/21/1998

I hereby claim the benefit under 35 U.S.C. §120 of any prior U.S. non-provisional application(s) or under §365(c) of any prior PCT international application(s) designating the U.S., listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in such U.S. or PCT international application in the manner provided by the first paragraph of 35 U.S.C. §112, I acknowledge the duty to disclose to the PTO all information which is material to patentability as defined in 37 C.F.R. §1.56 which became available between the filing date of the prior application and the national or PCT international filing date of this application:

Application No.	Filing Date (MM/DD/YYYY)	Status (patented, pending, abandoned)
09/314,161	05/19/1999	Pending
09/218,277	12/22/1998	Pending

As a named inventor, I hereby appoint the following registered practitioners to prosecute this application and to transact all business in the Patent and Trademark Office connected therewith:

All of the practitioners associated with Customer Number 001444

Direct all correspondence to the address associated with Customer Number 001444, which is presently:

BROWDY AND NEIMARK, P.L.L.C.
 624 Ninth Street, N.W.
 Washington, D.C. 20001-5303
 (202) 628-5197

Title: ACTIVATED T CELL'S NERVOUS SYSTEM-SPECIFIC ANTIGENS AND THEIR USESU.S. Application filed June 28, 2001, Serial No. _____

PCT Application filed _____, Serial No. _____

The undersigned hereby authorizes the U.S. Attorneys or Agents appointed herein to accept and follow instructions from Webb Ben-Ami & Associates as to any action to be taken in the U.S. Patent and Trademark Office regarding this application without direct communication between the U.S. Attorneys or Agents and the undersigned. In the event of a change of the persons from whom instructions may be taken, the U.S. Attorneys or Agents appointed herein will be so notified by the undersigned.

I hereby further declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under 18 U.S.C. §1001 and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

FULL NAME OF FIRST INVENTOR Michal EISENBACH-SCHWARTZ	INVENTOR'S SIGNATURE	DATE
RESIDENCE Rehovot, Israel	CITIZENSHIP Israeli	
POST OFFICE ADDRESS 5 Rupin Street, Rehovot 76353, ISRAEL		
FULL NAME OF SECOND JOINT INVENTOR Rhud HAUBEN	INVENTOR'S SIGNATURE	DATE
RESIDENCE Rehovot, Israel	CITIZENSHIP Israeli	
POST OFFICE ADDRESS c/o The Weizmann Institute of Science; P.O. Box 26; Rehovot 76100, ISRAEL		
FULL NAME OF THIRD JOINT INVENTOR Irun R. COHEN	INVENTOR'S SIGNATURE	DATE
RESIDENCE Rehovot, Israel	CITIZENSHIP Israeli	
POST OFFICE ADDRESS 11 Hankin Street, Rehovot, Israel		
FULL NAME OF FOURTH JOINT INVENTOR Pierre BESERMAN	INVENTOR'S SIGNATURE	DATE
RESIDENCE Moshav Sirtiya, Israel	CITIZENSHIP Israeli	
POST OFFICE ADDRESS Moshav Sirtiya 76834, Israel		
FULL NAME OF FIFTH JOINT INVENTOR Alon MONSONEGO	INVENTOR'S SIGNATURE <i>[Signature]</i>	DATE Oct. 16.01
RESIDENCE Rehovot, ISRAEL	CITIZENSHIP Israeli	
POST OFFICE ADDRESS Kefar Hanoar Ben-Shimon 73112 (Ben-Yosef)		
FULL NAME OF SIXTH JOINT INVENTOR Gila MOALEM	INVENTOR'S SIGNATURE	DATE
RESIDENCE Rehovot, Israel	CITIZENSHIP Israeli	
POST OFFICE ADDRESS 27 Borel Street, Rehovot, Israel 76405		

ALL INVENTORS MUST REVIEW APPLICATION AND DECLARATION BEFORE SIGNING. ALL ALTERATIONS MUST BE INITIALED AND DATED BY ALL INVENTORS PRIOR TO EXECUTION. NO ALTERATIONS CAN BE MADE AFTER THE DECLARATION IS SIGNED. ALL PAGES OF DECLARATION MUST BE SIGNED BY ALL INVENTORS.

OCT 31 2001

Atty. Docket: EIS-SCHWARTZ=2A

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Serial No. _____

PCT Application filed _____

Serial No. _____

The undersigned hereby authorizes the U.S. Attorneys or Agents appointed herein to accept and follow instructions from Webb, Bar and Associates as to any action to be taken in the U.S. Patent and Trademark Office regarding this application without direct communication between the U.S. Attorneys or Agents and the undersigned. In the event of a change of the persons from whom instructions may be taken, the U.S. Attorneys or Agents appointed herein will be so notified by the undersigned.

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FULL NAME OF FIRST INVENTOR Michael EISENBACH-SCHWARTZ	INVENTOR'S SIGNATURE	DATE
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POST OFFICE ADDRESS 5 Rupan Street, Rehovot 76353, ISRAEL		
FULL NAME OF SECOND JOINT INVENTOR Ehud HAUBEN	INVENTOR'S SIGNATURE	DATE
RESIDENCE Rehovot, Israel	CITIZENSHIP Israeli	
POST OFFICE ADDRESS c/o The Weizmann Institute of Science, P.O. Box 26, Rehovot 76100, ISRAEL		
FULL NAME OF THIRD JOINT INVENTOR Irit E. COHEN	INVENTOR'S SIGNATURE	DATE
RESIDENCE Rehovot, Israel	CITIZENSHIP Israeli	
POST OFFICE ADDRESS 11 Harkin Street, Rehovot, Israel		
FULL NAME OF FOURTH JOINT INVENTOR Pierre BREREMAN	INVENTOR'S SIGNATURE	DATE
RESIDENCE Kibbutz Chafetz Chaim, Israel	CITIZENSHIP Israeli	
POST OFFICE ADDRESS Kibbutz Chafetz Chaim 76817, Israel		
FULL NAME OF FIFTH JOINT INVENTOR Alon MONBONEGO	INVENTOR'S SIGNATURE	DATE
RESIDENCE	CITIZENSHIP Israeli	
POST OFFICE ADDRESS		
FULL NAME OF SIXTH JOINT INVENTOR Gila MOALEM	INVENTOR'S SIGNATURE <i>Gila Moalem</i>	DATE October 15, 01
RESIDENCE Rehovot, Israel	CITIZENSHIP Israeli	
POST OFFICE ADDRESS 31 Orlov Street, Pithah-Tigva, 47342		

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